

MINUTES
OF
THE UTAH RADIATION CONTROL BOARD

December 1, 2006

Department of Environmental Quality, DEQ Building #2

Conference Room 101

168 N 1950 W

Salt Lake City, Utah 84114-4850

BOARD MEMBERS PRESENT

Kent J. Bradford, P.G., Chair
Stephen T. Nelson, Ph.D., Vice Chair
Dianne R. Nielson, Ph.D., Director of DEQ
Craig Jones, Acting Executive Secretary
Patrick D. Cone
Frank D. DeRosso, MSPH, C.I.H.
Elizabeth Goryunova, M.S.
Peter A. Jenkins, M.S., CHP
Joseph K. Miner, M.D., MSPH
Gregory G. Oman, D.D.S., B.S.
Robert S. Pattison, B.Sc.
John W. Thomson, M.D.

PUBLIC

Judy Fahys, Salt Lake Tribune
Karen S. Langley, University of Utah
Mark Ledoux, , LLC
Dan Shrum, , LLC
Christopher Thomas, HEAL - Utah
James L. Sweet, M.S., RSO, GammaWest
Brachytherapy
Christopher Thomas, HEAL - Utah

BOARD MEMBERS ABSENT/EXCUSED

Dane L. Finerfrock, Executive Secretary
Joette E. Langianese, Commissioner

**DRC STAFF/OTHER DEQ MEMBERS
PRESENT**

Philip Griffin, DRC Staff
John Hultquist, DRC Staff
Yoli Necochea, DRC Staff
Fred Nelson, Attorney General's Office
Raymond Nelson, DRC Staff
William (Bill) J. Sinclair, DEQ Admin,
Deputy Director
Donna Spangler, DEQ/Office of Policy and
Planning

GREETINGS/MEETING CALLED TO ORDER

The Utah Radiation Control Board convened in the Department of Environmental Quality (DEQ), Conference Room 101, 168 North 1950 West (DEQ Bldg. #2, Salt Lake City, Utah, 84114-4850. Kent Bradford, Chair, called the meeting to order at 2:00 p.m. He welcomed the Board Members and the public. Chairman Bradford indicated that if the public wished to address any items on the agenda, they should sign the public sign-in sheet. Those desiring to comment would be given an opportunity to address their concerns during the comment period.

I. APPROVAL OF MINUTES (Board Action Item)

a. Approval of the October 6, 2006 Minutes

Kent J. Bradford asked the Board for corrections to the minutes from October 6, 2006. Stephen T. Nelson, Ph.D., Vice Chair, proposed the following corrections to the minutes of December 1, 2006.

1. Page 12, Item VIII., Public Comment, Second Public Speaker, Tye Rogers, comments, second paragraph, eighth sentence which reads “**Farnald** is also being completed this year.” **Change to read: Fernald** is also being completed . . .”
2. Page 12, Item VIII., Public Comment, Second Public Speaker, Tye Rogers, comments, second paragraph, last sentence which reads “If you look at the ’ forecast **Farnald’s** volume . . .” **Change to read: . . .Fernald’s . . .”**

MOTION MADE BY GREGORY OMAN, TO APPROVE THE MINUTES OF DECEMBER 1, 2006 WITH THE REQUESTED CORRECTIONS

MOTION WAS SECONDED BY ELIZABETH GORYUNOVA

MOTION CARRIED AND PASSED UNANIMOUSLY

II. RULES (Board action item)

a. Rulemaking Notice for R313-25, R313-26, R313-28, R313-36 and R313-70

Philip Griffin, Health Physicist, informed the Board Members about the proposed changes to the Utah Radiation Control Rules. He said these changes were a result of the five-year, rule continuation process review. He said the rules were substantive changes. A copy of the rules being changed was included in the Board’s packet. Please note that the text to be deleted is bracketed and has strikethrough text, [~~abed~~]. The Division has identified five rules that have substantive changes. These rules are: R313-25, R313-26, R313-28, R313-36, and R313-70.

The proposed changes are as follows:

- Modify the rules so that each rule would have a “Purpose and Authority Section” consistent with other Utah Radiation Control Rules (URCR).
- Correct typographical errors in the Rules.
- Correct references to the Utah Code Annotated (UCA) that have changed.
- Correct definitions to make them consistent with other parts of the Rules.
- Clarify what the continuing qualifications are for mammography imaging medical physicists, and clarify the role of consultants to review shield plans for x-ray facilities.
- Correct fees.

RECOMMENDATION:

The Executive Secretary recommended the Board’s approval of the proposed changes to the Utah Radiation Control Rules. He recommended that the Staff be directed to file the rulemaking changes. He recommended the Staff be directed to give notice to the public of a 30-day comment period. Next, the proposed changes to the Rules could be published in the Utah State Bulletin on January 15, 2007.

**MOTION MADE BY GREGORY OMAN TO APPROVE THE
UTAH RADIATION CONTROL RULES 313-25, 313-26, 313-28, 313-36 AND 313-70 AND TO SEND THE RULES OUT FOR A 30-DAY
PUBLIC COMMENT PERIOD
THE MOTION WAS SECONDED BY ELIZABETH GORYUNOVA**

MOTION CARRIED AND PASSED UNANIMOUSLY

III. RADIOACTIVE MATERIALS LICENSING/INSPECTION

No Items

IV. X-RAY REGISTRATION/INSPECTION

No Items

V. RADIOACTIVE WASTE DISPOSAL

- a. News from the Meeting of the Low-Level Radioactive Waste Forum and the Northwest Interstate Compact**

Bill Sinclair, Deputy Director of DEQ, reported on the 2006 meetings by organizations aligned with: (1) the Low-Level Radioactive Waste (LLRW) Forum and (2) the Northwest Interstate Compact (NWIC). Mr. Sinclair gave the following presentation to the Board:

Background Regarding the LLW Forum:

- State and Compact Representatives are appointed by the Governors of each state. Bill Sinclair is the designated representative appointed by the Governor to represent Utah. There are two alternate representatives:
 - Dane Finerfrock and Craig Jones receive the same information from the LLW Forum
- Federal agencies with an interest in low level waste management: DOE, EPA, NRC and the Department of Defense (DOD)
- Members of the Forum can also consist of disposal operators and generators
- The Forum was established in 1985 as a result of the LLW Policy Act which established different regional sites to dispose of Low-Level Radioactive Waste (LLRW).
- In 2001, the LLW Forum became an independent, nonprofit organization

Objectives of the LLW Forum:

- To educate policy makers and the public about management and disposal of LLRW and the aims of the Federal LLW Policy Act
- The LLW Forum consists of members throughout the United States.

Hot Topic Issue of the Meeting--Future Definition and Management of Low-Level Waste Efforts Currently Underway or Completed:

(A LLW Forum Meeting was Held in March 20-21, 2006 at Austin, Texas)

- Advisory Committee to NRC on Nuclear Waste: “White Paper Re: History and Framework of Commercial LLRW Management in the U.S.”
- National Academy of Science’s Report on Low-Activity Waste Disposal
- Southwest Compact Commission Policy Statement: Management of LLRW
- LLW Forum Inc.: Discussion of Issues, Management of Commercial LLRW
- General Accountability Office: Questions for LLRW Management Experts
- Cal Rad Forum: Response to Discussion of Issues, Management of Commercial LLRW

- Health Physics Society: Position Statement–LLRW Management Needs A Complete and Coordinated Overhaul

Discussion of Issues:

- Position 1: Commercial LLRW is currently well regulated and managed safely
- Position 2: There is not an immediate crisis. The current national management system affords flexibility to make adjustments as conditions across the country change; however, it is important to continue working to meet all current and future disposal needs
- Position 3: When evaluating alternatives to the current national waste management system, it is important to take into consideration political realities, economic consequences, and regulatory concerns. Proposals need to be carefully analyzed from the perspective of all affected parties
- Position 4: The federal government is currently providing several forms of appropriate assistance to states and compacts for the management of LLRW

LLW Forum Meeting in Marcos Island Florida on September 18-19, 2006

Hot Topic of the Meeting: Problem Radioactive Waste Streams

- 2 day meeting w/focus on inviting generators of radioactive waste to participate in breakout group
- What are some to the problem waste streams?
- Consequences of limited or no disposal options
- B/C waste disposal ends for 36 states on July 1, 2008

Some Next Steps:

- Understanding what brokers, processors, disposers can and cannot do for the generators (brokers and processors will be invited to future Forum Meetings to discuss capabilities)
 - Continue to work on path for B/C waste
 - Update “Processors/Brokers Directory”

Background Regarding the Northwest Interstate Compact

(meeting held on April 20, 2006 in Helena, Montana)

- Created per the Low-Level Waste Policy Act
- States work together to create a regional site/host state
- NWIC formed with the states of Utah, Idaho, Montana, Wyoming, Oregon, Washington, Alaska and Hawaii
- A member from each state is appointed by the Governor to serve on the NWIC. Bill Sinclair is the member from Utah
- The committee meets annually
- Washington is the host state. The facility is operated by US Ecology and is located on the Hanford Reservation. It is leased to

the State of Washington

- Through this agreement, all commercial LLW from member states is sent to the US Ecology facility in Washington
- EnergySolutions operates within the NWIC through a Resolution and Order (an arrangement)
- This Resolution and Order defines the terms and conditions that EnergySolutions must abide by to receive commercial LLW
- EnergySolutions cannot accept LLW from NWIC member states including Utah
- The Resolution and Order does not impact receipt of federal low-level waste, mixed waste, uranium mill tailings, or NARM waste received by EnergySolutions from any state

3rd Amended Resolution and Order:

- R & O is amended as needed
- Current R&O needed changes as follows:
 - Recognize change of owner from Envirocare to EnergySolutions
 - Change reporting requirements by EnergySolutions to the NWIC to eliminate some requirements and add an additional requirement
- Change effective date/signed by current Committee chair
- 3rd Amended Resolution and Order passed unanimously by the Committee
- Replaces 2nd Amended Resolution and Order and is now in effect

b. Perpetual Care Report to the Legislature Interim Committee (Board Information Item)

Kent Bradford, Chair, said he, Dane Finerfrock and Dianne Nielsen had provided the legislature with the findings of the Perpetual Care Report prepared by URS Corporation and revised and edited by the Board.

Kent Bradford, Chair, said it turned out differently than what they had expected. The legislature was not particularly interested in the questions considered in the report i.e., whether the Perpetual Care Fund was adequate, and how it was funded. Instead of considering whether there was adequate funding for the Perpetual Care Fund, they questioned the fundamental foundation of the fund being necessary. In the end, the committee voted not to accept the Board's recommendation, and in fact, they voted to support any bill that would eliminate the Perpetual Care Fund.

Kent Bradford, Chair, said the result was a little different than what the Radiation Control Board thought would happen. The basis for the Board's

recommendation was that the Perpetual Care Fund was created by the Utah Legislature. The perpetual care of radioactive waste is not a federal program. If EnergySolutions had been licensed by NRC, the NRC would not have created a Perpetual Care Fund because there is not a federal plan for it. The Perpetual Care Fund was something that the Utah Legislature created in 2001. 2001 was also the same year the Legislature was considering Class B and C waste. A number of the Committee Members expressed the opinion that the Perpetual Care Fund was created for B and C waste. The Committee felt that because the B and C Waste Bill was killed there was no longer a need for the Perpetual Care Fund. It will be interesting to watch the upcoming legislative session to see if the Legislature will actually eliminate the fund.

Questions by the Board:

Dianne Nielson, DEQ Director, commented that the legislature did accept having financial surety in place for closure and post-closure.

Patrick Cone asked it were true that the Perpetual Care Fund was created for Class B and C waste.

Dianne Nielson, DEQ Director, said that it was a requirement of the Legislature that: (1) there be a Perpetual Care Fund and (2) that a Perpetual Care Fund Report be prepared and reviewed by the Utah Radiation Control Board. The Division of Solid and Hazardous Waste prepared the Report, because they were asked to prepare it. The Board would have been in trouble had it not prepared the Report.

Frank DeRosso asked if the future funding of the Perpetual Care Fund had been eliminated?

Kent Bradford, Chair, responded that nothing had changed at this point. The Legislature did not accept the Board's recommendation to change the funding formula. Unless something happens in the upcoming legislative session, there will still be the \$400,000 per year contribution.

Discussion followed by the Board Members as to whether there could be a house bill to eliminate the fund. Dianne Nielson, DEQ Director, said the Board Members could go on-line and get the Legislature's minutes. Bill Sinclair, Deputy Director, said an audio recording of the meeting was also on the website and Board Members could listen to the entire meeting.

The question came-up as to whether Board Members could contact the Committee Members to express their opinions? Fred Nelson, Attorney for DEQ said Board Members could express their interest or opinions to the Legislature. He said it was definitely within the operation of the Board.

Bill Sinclair, Deputy Director, mentioned that a lot of the Legislature's Committee Members that had heard the report would no longer be part of the up-coming legislature. Discussion followed and comments were made as to who would be responsible or liable in the future, if something did happen at the EnergySolutions facility after closure.

Kent Bradford, Chair, said it was his understanding that EnergySolutions was responsible for 100 years after closure. The Perpetual Care Fund "kicks in" after that point. Kent said there was a bill to eliminate the Perpetual Care Fund. Ultimately, however, the bill will need not only the approval of the legislature, but also the signature of the Governor.

Kent Bradford, Chair, said Tye Rogers representing EnergySolutions indicated that he would like to speak to the Board, and Christopher Thomas representing HEAL – Utah indicated he would like to speak to the Board.

Public Speaker 1:

Tye Rogers, EnergySolutions, said he wanted to let the Board know that EnergySolutions appreciated the work and effort completed by the Independent Board. He said EnergySolutions had no intention of supporting, pushing or filing any bill to eliminate the Perpetual Care Fund. He said EnergySolutions was committed to doing what the legislature felt was necessary. If the legislature votes to continue the Perpetual Care Fund, EnergySolutions will not push to get rid of it. EnergySolutions will support continued payments of \$400,000 per year. In five years, if the Fund is reviewed again, EnergySolutions will not file to eliminate the fund. EnergySolutions will continue to pay the \$400,000 per year.

Questions by Board Members:

Patrick Cone asked Tye Rogers if a bill were filed to eliminate the Perpetual Care Fund if EnergySolutions would not support it.

Tye Rogers, EnergySolutions, responded that it would be a decision he would not accompany. He said the owners of EnergySolutions support continuing to pay the \$400,000 per year. He said he apologized but he did not know what EnergySolutions would do, if someone did file to eliminate the Fund. But, he hoped EnergySolutions would continue to have the same interest in continuing to support the Fund.

Public Speaker 2:

Christopher Thomas, Policy Director for HEAL – Utah, said he appreciated the opportunity to talk to the Board. First of all, he said he wanted to thank the Board for working on the Perpetual Care Fund Report, and he said talking to the Board publicly serves an important role. HEAL

– Utah feels the Perpetual Care Fund serves a very important role: one hundred years after site closure, there will be money for monitoring and maintenance. There was some discussion at the Western Interim Committee Meeting that the site would not be a hazard 100 years after site closure. I do not believe that is true. It does not adhere with anything I know about radioactivity and the material disposed at the EnergySolutions Site. Consider the EnergySolutions Site and ask: “Is there going to be a radioactive hazard at the end of 100 years after the site’s closure. What will that hazard actually be?”

Mr. Thomas, Policy Director for HEAL – Utah, said he was incredibly disappointed in Mr. Tye Roger’s comments regarding paying the \$400,000 annual fee. He said that it does not seem like the company promotes “going the extra mile.” He said it seems incredibly irresponsible to make the recommendation that EnergySolutions does not think the fund is necessary. He asked for input from the Board and for input from the Board on the Legislature.

Kent Bradford, Chair, asked if there were any questions for Mr. Thomas. There were none.

Questions by the Board:

Patrick Cone asked to hear from EnergySolutions regarding their comments to the Legislature. Kent Bradford, Chair, asked Tye Rogers to summarize EnergySolutions’ comments to the Utah Legislature.

Tye Rogers, EnergySolutions, explained to the Board that he was not the one that addressed the Legislatures for EnergySolutions. He said Tim Barney, Executive Vice President of EnergySolutions, addressed the Legislatures. Tye Rogers said that he could get a copy of Mr. Barney’s comments for the Board. He said the two biggest things were: (1) that the Perpetual Care Fund is not requirement of the NRC--perpetual care is not a requirement of the federal bylaws and (2) at the time, the question came up about Class A waste, and we feel that the Perpetual Care Fund was created for liability--in case there was an accident or a leak in the future. Even though EnergySolutions does not feel it is required by the Federal Government, EnergySolutions will continue to pay the \$400,000, if it is required in the EnergySolutions License and by the State of Utah.

Kent Bradford, Chair, asked if Christopher Thomas, Heal Utah, had final comments.

Christopher Thomas, HEAL – Utah, said he would like EnergySolutions to support the consulate of a Perpetual Care Fund. He asked EnergySolutions to discuss what the Perpetual Care Fund should look like, and what amount it should contribute per year.

Kent Bradford, Chair, said the Legislative Transcript on the Perpetual Care Fund Report was available on the web. He asked for any final comments from Board Members? There were no additional comments.

c. Request to Dispose of Carbon-14 Activated Graphite Report on Disposed Waste at (Board information item)

Kent Bradford, Chair, informed the Board that this information item would be dropped from the agenda. He said Dane Finerfrock, the Executive Secretary, was sick, and he would not be able to give his presentation to the Board. He said Craig Jones was the Acting Executive Secretary.

VI. URANIUM MILL TAILINGS UPDATE

No Items

VII. OTHER DIVISION ISSUES

a. Radon Program Annual Update

John Hultquist, Section Manager, said that each year the Division updates the Board on the Radon Program. John reported that the program has been in effect for 16 years. The Radon Program provides education through public outreach to individuals, homeowners, and other public agencies regarding all aspects of indoor radon. The following items were presented to the Board:

Utah's Indoor Radon Program

- Provides Education through Public Outreach, and Individualized Assistance to:
 - Homeowners and Individuals
 - Public Agencies Concerning all Aspects of the Indoor Radon Hazard Problem
- All the Funding Comes From EPA.

The Indoor Radon Program Focuses Its Efforts in the Following Five Areas:

- Radon Awareness (Testing and Mitigation)
- Real Estate Disclosure and Testing (Continuing Education Courses)
- Radon Resistant Construction (Booths and Presentations)
- Local Coalitions – Utah Safety Council, American Lung Association,

- Intermountain Health Care (IHC)
- Public School Testing

Average Annual Dose to U.S. Citizens from “Background”

- Consumer Products – 10 mrem (3%)
- Nuclear Medicine 13 mrem (4%)
- Medical X-rays 39 mrem (11%)
- Terrestrial 28 mrem (8%)
- Cosmic 28 mrem (8%)
- Internal 39 mrem (10%)
- Radon 200 mrem (55%)

Natural Background Radiation = 295 mrem (82%)

Manmade Radiation = medical + consumer products + other = 65 mrem (18%)

Total Effective Dose + 360 mrem

Statewide Radon Concentrations

- Between 1990 – 2006 there have been over 6,162 total short term tests performed in Utah.
- Statewide Average – 4.6 pCi/L

Radon Results by County in Utah

- Greater than 20 pCi/L – Beaver County.
- Between 10.0 and 20 pCi/L – Rich County
- Between 4.0 and 10 pCi/L – Box Elder, Cache, Weber, Tooele, Utah, Wasatch, Juab, Carbon, Salt Lake, Sanpete, Sevier Counties.
- Less than 4.0 pCi/L - Morgan, Davis, Summit, Dagget, Duchesne, Uintah, Millard, Emery, Grand, Piute, Wayne, Piute, Iron, Garfield, San Juan, Washington, and Kane Counties

Common Short-Term Test Devices

- Activated Charcoal Devices from Certified Laboratories
- Placed by:
 - Measurement Provides Offering Standard Services
 - Analyzed by Third-Party Labs
 - Results Not Available on Site.
 - Deployed for 2-5 days

Fixing A Home With A Radon Concern

- Active soil depressurization is a means of creating a vacuum beneath a slab or plastic sheet and collecting the radon before it enters a building.

System Depressurization Fan

- Installed in attic, garage, or outside

- Must not be installed inside of house
- Quiet
- Typically a 60 to 90 watt fan runs continuously
- 11 year expected life
- New homes can be built with radon control system

Current Outreach Activities

- National Student Poster Contest (9 to 14 years old)
- DRC/IHC Hospitals New Baby Educational Program
 - In 2005, 1,590 kits were distributed
 - 405 kits returned for analysis (25%)
- Boy Scout troop Community Radon Project
 - Provide information regarding indoor radon to homeowners in the community and volunteer testing
 - The National Winner gets a trip to Washington, D.C.

Questions by the Board:

Some of the Board Members had questions regarding mitigation in a home. John said the Division maintains a website where the Board could get more information regarding radon. He also let the Board know they could get test kits from several different programs within the state and county.

b. Reminder:
Hearing on the Sierra Club Request for Agency Action on January 26, 2007, Blanding, Utah

Craig Jones, Acting Executive Secretary, informed the Board that at the October Board Meeting a Stipulated Order and Schedule was approved by the Board Members. The matter involves the Glen Canyon Club of the Sierra Club and their desire to present their issues about a license amendment to amend the International Uranium (USA) Corporation's license. Craig informed the Board that the Hearing schedule was as follows:

- A One-Day Hearing Schedule on January 26, 2007
- This Hearing is Scheduled in Blanding, Utah
- Within the Next Few Weeks the Board will Receive More Specific Information from DRC Regarding:
 - The Location of the Hearing in Blanding, UT
 - Travel information
 - Motel Arrangements
 - Agenda Items

c. **Utah Science Center: “Science in Society Public Dialog Series”**

Kent Bradford, Chair, introduced Dr. Joseph Andrade, the Director of the Utah Science Center. Kent Bradford said Dr. Andrade requested the Board’s input regarding public education at the Utah Science Center.

Dr. Joseph Andrade said the Utah Science Center was part of the Leonardo. He said the Leonardo is a unique science art museum opening in about two years on Library Square. It is located in the old Salt Lake City public library building. The building will be remodeled. Even though the Leonardo will not open for a couple of years, the science-center compound has a number of operational programs which are on-going. One of which is the Science and Society Public Dialog Series which is held six times a year in the Library Auditorium and is broadcast live on KCPW. The program engages the public in dialog related to scientific and technical topics and current issues.

This upcoming year, there will be a series on the elements. A couple of months ago, we held a dialogue on mercury, and a month ago we held a dialogue on fluoride. On January 11, 2007 there will be a dialogue on radon and uranium, elements 86 and 92.

He said the Utah Science Center wanted to encourage public interest in the periodic table and in the concept of the elements. In addition, the public can consider what the elements are good for and perhaps what they are bad for. It may help the public measure the issues associated with the elements. We have no agenda. The purpose of the program is to engage the public in learning about the elements and becoming motivated. We have involved DEQ in the series in a fairly significant way.

Dr. Andrade said he would love to get the Board’s suggestions for possible participants on the panel and for topics which the Board may encourage addressing. He said it was obvious that the handout on “Utah’s Indoor Radon Program,” will fit beautifully. He said he hoped to be in touch with one or more of the Board Members about the panel. He said he would welcome suggestions for the makeup of the Radon and Uranium Panel.

Questions from the Board:

Elizabeth Goryunova asked how the Board could contact Dr. Andrade.

Dr. Andrade informed the Board that he could be contacted by email at: JAndrade@utahsciencecenter.org

Dianne Nielson, DEQ Director, informed the Board that she and Kevin Brown, Drinking Water’s Director, and some of the Drinking Water Staff

participated in the discussion on mercury and fluoride. Dianne Nielson encouraged the Board and Division Staff to be helpful. She said she would be happy to help coordinate the information for the panel. She said Dane Finerfrock, the Division of Radiation Control's Director, would also assist the Utah Science Center.

IX. OTHER ISSUES

Next Scheduled Board Meeting: January 26, 2007, Blanding Arts and Events Center, 790 West 200 South, Blanding Utah, 8:00 – 5:00 P.M.

MOTION WAS MADE BY GREGORY OMAN TO ADJOURN THE BOARD MEETING, MOTION WAS SECONDED BY FRANK DEROSSO.

MOTION CARRIED AND PASSED UNANIMOUSLY

THE BOARD MEETING ADJOURNED AT 3:24 P.M.